

*New Jersey Department of Transportation*  
1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600



## *Baseline Document Change Announcement*

### **Non-Vegetative Surfaces**

**BDC10S-02**

**October 14, 2010**

**SUBJECT:**            **Revision to Section 608 and Subsection 919.15 of the 2007 Standard Specifications**

**REFERENCE:**        **BDC10MR-01, *Design Manual Roadway*, Revision to Section 8, Guidelines for Guide Rail Design and Median Barriers, dated October 13, 2010**

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Section 608 and Subsection 919.15 of the 2007 Standard Specifications have been revised to include three additional non-vegetative surface items.

Non-vegetative Surface, Hot Mix Asphalt (HMA), can be used wherever guide rail is placed. Impervious surface, including Non-vegetative Surface, HMA, should be kept below one-quarter acre per project as per storm water management requirements. If not, an application for a hardship waiver should be made. Three additional types of porous non-vegetative surfaces are incorporated in order to keep the net impervious surface to a minimum:

- Non-vegetative Surface, Porous Hot Mix Asphalt,
- Non-vegetative Surface, Polyester Matting, and
- Non-vegetative Surface, Broken Stone

Guidance on where to place the these three additional types of non-vegetative surfaces and the required thickness is included in the referenced BDC10MR-01.

The following revisions have been incorporated in Standard Input, SI2007 as of October 14, 2010.

THE ENTIRE SECTION IS CHANGED TO:

**SECTION 608 – NON-VEGETATIVE SURFACES**

**608.01 DESCRIPTION**

This Section describes the requirements for constructing non-vegetative surfaces of HMA; color-coated HMA; porous HMA; broken stone, and polyester matting.

**608.02 MATERIALS**

**608.02.01 Materials**

Provide materials as specified:

Broken Stone, Coarse Aggregate No. 3.....	901.03
HMA (9.5M64).....	902.02
Asphalt-Stabilized Drainage Course.....	902.06
Non-Vegetative Surface Coating.....	912.02.04
Herbicide.....	917.11.03
Polyester Matting.....	919.15

Non-Vegetative Surface, Porous HMA shall conform to the requirements of Asphalt-Stabilized Drainage Course.

**608.02.02 Equipment**

Provide equipment as specified:

HMA Compactor.....	1003.05
Vibratory Drum Compactor.....	1003.06
HMA Plant.....	1009.01
HMA Trucks.....	1009.02

**608.03 CONSTRUCTION**

**608.03.01 Non-Vegetative Surface, HMA**

Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain RE approval before finishing excavation. If the RE determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the RE.

Construct the non-vegetative surface, HMA before installing guide rail. Obtain RE approval for alternate methods of construction.

Deliver HMA as specified in 401.03.03.D. Construct non-vegetative surfaces 4 inches thick. Place and compact the material to produce a surface free of roller marks and ridges. Spread and grade the HMA as specified in 401.03.03.E. Ensure that the finished surface is smooth, even, and graded to drain away from the guide rail. Compact HMA as specified in 401.03.03.F. Spread, rake, and lute areas not accessible to pavers and rollers with hand tools and compact with dynamic compactors.

Repair non-vegetative surface damaged by guide rail installation with HMA. Use hand tampers around posts and other obstacles where mechanical compactors are not accessible.

**608.03.02 Color-Coated Non-Vegetative Surface, HMA**

Construct color-coated non-vegetative surfaces as specified in 608.03.01.

Uniformly apply the final color at the rate of 0.3 to 0.5 gallons per square yard by spraying, brushing, or squeegeeing over the HMA surface course. Ensure that the surface is clean and dry at the time of application. Reapply the coating to any missed spots or areas to obtain a uniform coating.

Avoid spilling the color coating on adjacent surfaces. If the color coating spills, immediately clean it with water before the coating dries. If the coating dries, repair as directed by the RE.

The RE will not allow traffic on the color-coated surface until it is dry.

#### **608.03.03 Non-Vegetative Surface, Broken Stone**

Ensure that areas to receive non-vegetative surface, Broken Stone, are free from vegetation. Vegetation removal may require manual removal, herbicide treatment as specified in 608.03.06 or both.

Apply a pre-emergent herbicide to the area before placement of broken stone. Spread broken stone, aggregate size No. 3, in a uniform layer, to prescribed thickness.

#### **608.03.04 Non-Vegetative Surface, Porous HMA**

Ensure that areas to receive non-vegetative surface, Porous HMA, are free from vegetation. Vegetation removal may require manual removal, herbicide treatment as specified in 608.03.06 or both. Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain RE approval before finishing excavation. If the RE determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the RE.

Construct the non-vegetative surface, porous HMA before installing guide rail. Obtain RE approval for alternate methods of construction.

Construct porous HMA surface course to prescribed thickness according to the requirements of Section 303 except for the application of prime coat. Repair non-vegetative surface damaged by guide rail installation with porous HMA. Use hand tampers around posts and other obstacles where mechanical compactors are not accessible.

#### **608.03.05 Non-Vegetative Surface, Polyester Matting**

Install polyester matting according to the manufacturer's requirements by manufacturer certified workers.

Ten days before installation, submit to the RE a list of manufacturer certified workers and one copy of the "engineering package" including demonstration compact discs and samples of product components; such as foot prints, finished seams, etc. The manufacturer may elect to train the workers and Department inspectors on a test section on the worksite.

Ensure that the surface areas to receive the matting are smooth, firm, stable and free of rocks, clods, foliage, roots or other material which might prevent the matting from lying in direct contact with the ground surface, free of wrinkles or bulges. Existing non-vegetative surface or HMA that is in the same location as proposed polyester matting may be left in place as long as its surface area is properly prepared as previously stated. Mow grass as low as possible prior to installation of matting. Install the matting immediately following installation of guide rail posts and prior to installation of the guide rail hardware by lifting the matting above the posts and allowing it to drop to the ground with the posts passing through prefabricated openings.

Stake the matting along its edges in accordance with the manufacturer's recommendations.

Seal matting openings with a separate prefabricated piece of matting that will provide a snug fit around the post and completely cover the opening. Ensure that seams are sealed.

Ensure that the matting surface is vegetation-free from installation until final acceptance. Vegetation removal may require herbicide treatment, mechanical removal, or both, as specified in 608.03.06.

#### **608.03.06 Post-Emergent Weed Control of Non-Vegetative Surfaces**

Manually remove or Spray vegetation growing on the non-vegetative surface with a post-emergent non-selective herbicide treatment for total control of vegetation on the non-vegetative surface area, as directed by the RE. The post-emergent herbicides selected for control of targeted vegetation shall be based on the manufacturer's recommendations and product label. Begin the work associated with vegetation removal as early as the conditions permit. Herbicides

must be applied by, or under the direct supervision of, a Certified Commercial Pesticide Applicator, according to the manufacturer's recommendations. Restore areas where herbicide has been applied and not intended to its prior existing condition at no cost to the State. Do not apply herbicide in the rain or when wet weather is expected within 24 hours. Do not apply herbicide after rain until approved by the RE.

The RE will notify the ME after Acceptance for inclusion of the non-vegetative surface in its herbicide spraying program including the date that the herbicide was last applied on the project section.

**608.04 MEASUREMENT AND PAYMENT**

The Department will measure and make payment for Items as follows:

<i>Item</i>	<i>Pay Unit</i>
NON-VEGETATIVE SURFACE, HOT MIX ASPHALT	SQUARE YARD
COLOR-COATED NON-VEGETATIVE SURFACE, HOT MIX ASPHALT	SQUARE YARD
NON-VEGETATIVE SURFACE, BROKEN STONE, ___ THICK	SQUARE YARD
NON-VEGETATIVE SURFACE, POROUS HOT MIX ASPHALT, ___ THICK	SQUARE YARD
NON-VEGETATIVE SURFACE, POLYESTER MATTING	SQUARE YARD

When the RE directs undercutting of unstable material in the excavation area, the Department will make payment, as specified in 104.03.03, for the additional excavation. The Department will also make payment, as specified in 104.03.03, for the additional bedding if there is not an excess of excavated material available for use as bedding.

**SECTION 919 – MISCELLANEOUS**

THE FOLLOWING IS ADDED:

**919.15 POLYESTER MATTING**

Provide polyester matting of commercial quality that is a composite of polyester base fiber and vinyl chloride resin and is permeable to air and water, but shall prevent sunlight from reaching the soil. Ensure that the matting resists ultraviolet light, mildew and algae. Ensure that the matting is self-extinguishing when removed from flame. Ensure that the matting has a minimum thickness of 1/4 inch.

**Implementation Code R (ROUTINE)**

Changes must be implemented in all applicable Department projects scheduled for Final Design Submission at least one month after the date of the BDC announcement. This will allow designers to make necessary plan, specifications, and estimate/proposal changes without requiring the need for an addenda or postponement of advertisement or receipt of bids.

**Recommended By:**

ORIGINAL SIGNED

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Walter McGrosky  
 Director,  
 Capital Program Support

**Approved By:**

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Richard T. Hammer  
 Assistant Commissioner,  
 Capital Program Management